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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

LEGAL SUB-COMMITTEE

Sixteenth session

SUMMARY RECORD OF THE 272nd MEETING

Held at Headquarters, New York,  
on Tuesday, 22 March 1977, at 10.30 a.m.

Chairman: Mr. WYZNER (Poland)

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Legal implications of remote sensing of the earth from space, with the particular aim of formulating draft principles on the basis of common elements identified by the Legal Sub-Committee (continued)

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The meeting was called to order at 10.50 a.m.

GENERAL EXCHANGE OF VIEWS (continued)

1. Mr. JACEK (Czechoslovakia) said that his country was a party to the multilateral international treaties concerning outer space worked out by the United Nations, with the exception of the Convention on Registration of Objects Launched into Outer Space, ratification of which was under consideration. In accordance with those instruments, Czechoslovakia was actively participating in international co-operation in research on outer space, particularly within the framework of the socialist countries.
2. Although it had not been possible to finalize any other legal instrument since the adoption in 1974 of the Convention on Registration, the Sub-Committee's work had produced positive results represented by the unified text of the draft treaty relating to the moon and by the formulation of nine general principles on direct television broadcasting and five general principles on remote sensing. That gave reason to hope that significant progress would be achieved during the current session in the priority tasks assigned to the Sub-Committee by the General Assembly.
3. Czechoslovakia regretted that approval of the draft treaty relating to the moon had been delayed because it had been made conditional on the solution of the difficult problems of the legal status of the natural resources of the moon and the régime for their exploitation. While his delegation did not underestimate the importance of those problems, it believed that they could be solved separately, since the exploitation and economic use of the resources of the moon and of other celestial bodies remained hypothetical. In addition, the formula of the "common heritage of mankind", on which were based some proposals relating to the draft treaty, lacked clear legal content and might lead to untenable conclusions such as the view that mankind as a whole should be considered as a subject of international law; that would not be beneficial for international co-operation. The delegations of the USSR and of other socialist countries had been trying to find an acceptable solution and it was to be hoped that their proposals would evoke a positive reaction among the other delegations.
4. With regard to direct television broadcasting by satellite, the fact that nine basic principles had been worked out at the Sub-Committee's fifteenth session gave grounds for hope that it would be possible at the current session to formulate the remaining principles, including the extraordinarily important principle of prior consent. In that connexion, reference should be made to the final acts of the World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service, held in January in Geneva, which had been signed by over 150 States. They included a plan for regions 1 and 3 (Europe, Asia, Africa and Australia), which assigned orbital positions and frequencies and delimited the areas where the broadcasts would be directed, and interim provisions for region 2 (North and South America and Greenland). The results of that Conference could be interpreted as acceptance of the principle of prior consent, and they should be taken into account by the Sub-Committee.

(Mr. Jachek, Czechoslovakia)

- 4a. His delegation also attached great importance to the principles relating to programme content of direct television broadcasts, which should reflect the principles and purposes of the United Nations Charter and stress the obligation to exclude anything which was contrary to the preservation of international peace and security, which constituted interference in the internal affairs of other States or which undermined the foundations of local civilizations, cultures or traditions.
5. Remote sensing of the earth from space - an item which Working Group III had just started to discuss - involved technology of a global character, unlike television broadcasting, which could be channelled with relative precision to a certain territory. That technique offered great benefits, particularly from the point of view of economic development, although it clearly affected the sovereign rights and interests of States. The joint French-USSR proposal provided a solid basis for the formulation of legal principles applicable to remote sensing which would protect the sovereign rights and interests of States and preserve the freedom of the use of outer space for scientific purposes and aims of general interest.
6. Mr. ALBORNOZ (Ecuador), speaking at the invitation of the Chairman, noted that, since Ecuador was one of the 10 countries located in the equinoctial zone, it was particularly interested in everything connected with the question of the geostationary synchronous orbit, as a new region which could give the developing world a means of overcoming the imbalances and injustices on earth. No exclusions could be permitted in that new frontier of space, since they would produce a neo-colonialism of outer space. The argument that the equatorial countries did not have the necessary technological or economic capacity to use satellites was similar to the arguments adduced with regard to sovereignty over the resources of the sea and the sea-bed. The theory of a 200-mile maritime sovereignty was currently proclaimed even by the Powers which were illegally fishing in Ecuadorian waters, thus admitting that coastal States could unilaterally determine the orbits of their maritime jurisdiction.
7. The Ecuadorian delegation reiterated its view that any definition of the national sovereignty of States in outer space should take into account the recognition of the quite special character of geostationary orbital segments. The proposal for a 100-kilometre limit on the sovereign rights of a State in the atmospheric cover and the space situated directly above its national territory was not applicable to those segments, since the distance at which satellites had to be placed in geostationary synchronous orbit was 35,871 kilometres above the equator.
8. By its physical characteristics, the geostationary orbit constituted a limited natural resource whose importance for the equatorial States was constantly increasing with the advances of technology and the growing requirements of modern communications. It was such a scarce resource that, as had been pointed out in the Sub-Committee, there might in the near future be a complete saturation of the orbit, in view of the constant increase in the number of satellites using it. At present that natural resource was being exploited exclusively by the more developed States and by transnational corporations, which considered that they were authorized to do so by the provisions of the 1967 Treaty. Yet that instrument contained no

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(Mr. Albornoz, Ecuador)

reference to the specific resource of the geostationary orbit and, in any case, its sphere of application could not be defined since there was no valid and acceptable concept of what constituted outer space. As an argument in favour of such exploitation, reference had even been made to freedom of communication and education, and in that connexion the equatorial countries were concerned to note that, on the pretext of economic or technological superiority, transnational corporations could use satellites to influence the information media and, consequently, future generations. The equatorial countries specifically wished to exercise their right to that freedom and their preferential right to the technical information obtained from satellites for application to development; accordingly, they supported the principles of authorization by the sensed State and prior consent as the only safeguard for their interests.

9. As a consequence of the existence of sovereign rights over the segments of the geostationary orbit, the equatorial countries considered that the legal régime applicable to that zone should take into account a series of premises. Firstly, the rights of sovereignty of the equatorial countries were designed to benefit their own peoples and the international community in general, and the orbit could not be used primarily for the benefit of the more developed countries. Secondly, the segments of the orbit corresponding to the high seas beyond national jurisdiction should be regarded as the common heritage of mankind, so that the competent international organizations could regulate their use and exploitation for the benefit of mankind. Thirdly, the equatorial States did not object to freedom of orbital transit and of communications required by the satellites provided for in the International Telecommunication Convention, when such satellites were moving in its territorial sky in gravitational flight outside their geostationary orbit. Fourthly, the prior and express consent of an equatorial State would be required before an artefact could be placed in a fixed position in that State's segment of the geostationary orbit, and its operation would be regulated by the legislation of that State. That authorization referred to the right of countries to allow fixed radio communications stations to operate in their territory, and was not related to any co-ordination which might be requested in the event of interference between satellite systems. Lastly, the existence of satellites from other countries in the equatorial countries' segments of the geostationary orbit did not create future emplacement rights, and the country which exercised sovereignty over the segment had to authorize its use.

10. In view of those facts, all the equatorial States had decided at their meeting in Bogota in December 1976 to declare their rights of sovereignty over the geostationary orbit and to proclaim the application to that orbit of the provisions of General Assembly resolutions 2692 (XXV) and 3281 (XXIX). His delegation hoped that the Sub-Committee would during its discussions take into account that common position of the States situated on the equator.

11. Mr. KATO (Japan) said that, with regard to remote sensing, it would be useful for the Legal Sub-Committee to proceed during the current session along the same lines as it had at the previous session, at which it had succeeded in formulating five draft principles and in identifying three common elements, and that it should

take into particular account the results of the discussions at the recent session of the Scientific and Technical Sub-Committee. With regard to the question of the sovereignty of the sensed State, his delegation took the view that remote sensing, regardless of whether or not it was concerned with natural resources, should be possible without the consent of the sensed State and that the dissemination to a third State of raw and processed data and information should also be possible without the consent of the sensed State. The data and information in question should, however, be made available to the sensed State at the earliest possible opportunity, in accordance with the principle of open dissemination. None the less, his country understood the concern expressed by some countries about the possible abuse of remote sensing and considered it desirable that some measures of adjustment should be explored for the purpose of alleviating that concern, paying due regard to an equitable balance between the potential benefits derived from remote sensing and the concern of the individual sensed State. His delegation was ready to explain its point of view in greater detail during the debate in Working Group III.

12. Mr. GAVIRIA (Colombia), speaking at the invitation of the Chairman, reserved the right to speak on the subject of the synchronous geostationary orbit, with which the representative of Ecuador had already dealt in detail, at a later stage when the Sub-Committee came to deal specifically with that question.

13. Mr. DAMANIK (Indonesia) said that, as a result of the efforts which it had already devoted to the draft treaty relating to the moon, the Sub-Committee now had a substantially elaborated text. In the opinion of his delegation, it was most important that the final version of the draft should include a reference to the fact that the moon must be regarded as the "common heritage of mankind" and that that concept, which was implicit in article I, first paragraph, of the Treaty on Outer Space, must be clearly defined within the context of that Treaty. Of equal importance was the need, implicit in the same article, to safeguard the natural resources of the moon so that no single State or group of States could appropriate them for its own use. However, it was not enough to proclaim the legal status of those natural resources. An international régime must be established to regulate the exploration and exploitation of the resources of outer space and the equitable distribution of the resulting benefits. His delegation was aware of the difficulties inherent in the establishment of such a régime and would do its best to support all efforts which took into account the views expressed by the developing countries.

14. It would also seem wise to extend the provisions of the treaty relating to the moon to include all other celestial bodies in the solar system. The Treaty on Outer Space made no distinction between the moon and other celestial bodies and referred to them together in several of its provisions. The need for information concerning exploratory missions to the moon was no less important for the promotion of international co-operation, and that need was recognized in article XI of the Treaty on Outer Space, in which States agreed to inform the Secretary-General of any discovery of natural resources. Moreover, the international scientific

(Mr. Damanik, Indonesia)

community and international organizations should be involved in a practical way in investigating whatever resources were brought back to earth.

15. The encouraging progress achieved in the formulation of principles governing direct television broadcasting by satellite might facilitate further progress in the difficult areas of consent and participation and of programme content. There too, the progress achieved so far appeared to suggest that the legal principle of the sovereign rights of States need not frustrate the political concept of freedom of information. The problem might be solved by principles which provided for consent and participation, with appropriate procedures for the settlement of disputes.

16. Indonesia considered remote sensing to be a significant aspect of space technology, not only as a means of obtaining a comprehensive inventory of a country's natural resources but also as a potentially effective tool for enhancing economic development. In the view of his delegation, remote sensing should be conducted in the interest of the sensed country, which alone should receive all data collected on its natural resources. Sensing States should be required to inform the sensed States of their activities. In addition, data should not be disseminated indiscriminately but only in agreement with the Government of the sensed State, to which any third country desiring access to those data would have to apply for authorization.

17. His delegation also attached great importance to questions relating to the definition and/or delimitation of space activities, in particular the technical and legal implications arising from the geostationary orbiting of satellites. In that context, the question had arisen whether, under the terms of the Treaty on Outer Space, the orbiting of geostationary satellites could be regarded as a legitimate activity or as an act of appropriation of a part of space by a nation or group of nations, regardless of the fact that it might be years before other nations had the technological capability for placing their own satellites in the geostationary orbit. The current rule that the first occupier was entitled to occupy indefinitely a particular location in that orbit above an equatorial State was questionable. There was a need for a system of advance planning and co-ordination which would be flexible and at the same time ensure the availability of orbital locations for late-comers.

18. In view of the complexities of geostationary satellites and their relation to the question of the delimitation of outer space, the approach to those questions should have three objectives: agreement in defining the limits of outer space; the establishment of an economic zone in space similar to that established in the case of the sea; and the granting of priority to equatorial States in the use of the geostationary orbit. The formulation of a treaty incorporating those provisions would serve a twofold purpose in reaffirming the validity of the principles of the Treaty on Outer Space and in extending the scope of international law to additional areas of great importance to all nations. His delegation hoped that the Legal Sub-Committee would be able to initiate the essential provisions of such a treaty at the current session.

LEGAL IMPLICATIONS OF REMOTE SENSING OF THE EARTH FROM SPACE, WITH THE PARTICULAR AIM OF FORMULATING DRAFT PRINCIPLES ON THE BASIS OF COMMON ELEMENTS IDENTIFIED BY THE LEGAL SUB-COMMITTEE (A/AC.105/171/Annex III) (continued)

19. Mr. DANIELSSON (Sweden) said that rapid progress had been made in the technology of remote sensing from space and quoted as examples the United States LANDSAT project, the Soviet Union's remote sensing programme and Indian plans for a remote-sensing satellite. In his view, such developments indicated that space and ground technology in that area would make even faster progress in the future. The task entrusted to the Committee on the Peaceful Uses of Outer Space in that connexion had a twofold purpose: first, to solve any problems that might arise from the use of that new technique and, second, to ensure that all nations derive the maximum benefit from it. Remote sensing was a complex issue, and a common understanding of what it involved would contribute considerably to identifying problems and agreeing on appropriate solutions. Much work remained to be done in that area, and an active interplay between the two Sub-Committees was vital, particularly since the main Committee had been unable at its preceding session to co-ordinate the work of its Sub-Committees. One positive example of a fruitful interplay had been the definition of the terms "primary data" and "analysed information" agreed upon in the Scientific and Technical Sub-Committee after the need for such a definition had arisen in the Legal Sub-Committee. The Legal Sub-Committee should not lose sight of the fact that legal regulation was not the only way to solve remote-sensing problems.
20. Sweden believed that the proper approach to the question of remote sensing should, first of all, differentiate between the pre-operational and operational phases of remote sensing and, to that end, distinguish the individual characteristics of each phase. The pre-operational phase was normally established in order to try out a new technique, and in that case neither the continuity of data collection nor the time for data availability could be guaranteed. On the other hand, the purpose of the operational phase was to meet the specific needs of system users, and at that stage both the continuity of data collection and timely data reception were guaranteed. Secondly, the structure of remote sensing must be borne in mind. The agreed structure comprised six stages: data acquisition (satellites and command stations); data reception (antennas and receivers); data pre-processing (formatting and recording), data storage and dissemination (archiving and reproduction); data analysis (interpretation or user processing); and information utilization (practical application by users). That background was essential to an understanding of the decision adopted by the Scientific and Technical Sub-Committee with regard to an appropriate definition of the terms "primary data" and "analysed information"; that definition was contained in paragraphs 25-31 of the report of that Sub-Committee (A/AC.105/195). His delegation wished to propose that those terms should be accepted and included in the report of the Legal Sub-Committee.
21. The next step should be to define aspects of remote sensing requiring special consideration. The Sub-Committee should try to reach agreement on problem areas for which some special action at an international level was necessary; it had initiated that task by identifying so-called common elements, but it was necessary to see the whole picture before arriving at a conclusion. The problem areas

(Mr. Danielsson, Sweden)

meriting attention included: when an operational system could be expected to be established; the effects of such a system; dissemination of data; the possible implications of establishing an international body; the special problems of developing countries; and the consequences of introducing relay satellite systems. It was necessary to ensure that future basic guidelines in the field of remote sensing, whether it was carried out by individual countries or by regional or global international organizations, were so formulated as not to prevent the development of the technique. In addition, it must be recognized that remote sensing was an activity carried out in space and that, under article I of the Treaty on Outer Space, it could not be subject to restrictions.

22. With respect to the products of remote sensing, the overriding concern should be to ensure that primary data were used for the maximum benefit of all, something which could best be done by arranging for the free availability of such data. In the future, many countries, individually or in groups, would be sending up their own satellites, thereby completely altering the concept of "sensing country". Therefore, it was essential to bear in mind the possibility that the organizational structure within which remote sensing would be carried out might be different from the current one. The anxiety of some countries with regard to their sovereignty over their natural resources was understandable; perhaps that anxiety could be diminished by assuring international co-operation and participation in the field of remote sensing and seeing to it that developing countries were able to profit from the use of the technique. The United Nations system was already conducting a number of activities with that end in view. Other ways of assisting developing countries included placing at their disposal the services of international consultants and stimulating regional co-operation, perhaps beginning with the establishment of ground stations.

23. At some stage it might be feasible to establish an international organization to take care of one specific application of remote sensing, or of remote sensing in one region, as, for example, an international system for global agricultural purposes or a system to monitor pollution. The possibility of establishing an international organization at the proper time should be borne in mind when the legal principles were discussed; the effectiveness of such principles might depend on an international organization's applying them to its own satellite.

24. Mr. LUTHER (German Democratic Republic) reaffirmed that the principle of the freedom of outer space was an essential basis for the codification and progressive development of outer-space law. Remote sensing of the natural resources of the earth involved another basic principle of international law, namely, the principle of the permanent sovereignty of States over their natural resources; to achieve a balance between the two principles, there must be peaceful co-operation between States in the exploration and use of outer space, with equal rights and corresponding obligations for every State.

25. The draft principles formulated by the Sub-Committee at its preceding session were an appropriate point of departure for the consideration of the legal aspects of remote sensing, and his delegation welcomed the methodical approach consisting



(Mr. Luther, German Democratic Republic)

laying down principles for remote sensing which resulted from elements of common interest. At the current stage it would be premature to consider a question as complex as that of the substantive scope of application of a future international instrument on remote sensing.

26. With regard to whether remote sensing required the prior consent of the sensed State, he maintained that prior consent was not necessary, in view of the principle of freedom of outer space laid down in article I of the 1967 Treaty. There was no legal basis in international law for requiring prior consent, since every State had the right to conduct research activities in areas and spaces not subject to national jurisdiction, provided that it took into account the legitimate interests of other States. His delegation held that national jurisdiction applied to the mainland territory of a State, the air space above it and a territorial sea of a width marked out in accordance with international law. It regarded the continental shelf and other maritime areas as subject to limited national jurisdiction by reason of their special status, but it deemed that no obligation existed under treaty or customary law for a State to seek the permission of other States to carry out peaceful outer-space research activities.

27. Regarding access to remote-sensing data and information, his delegation reaffirmed its position that, in view of the permanent sovereignty of States over their natural resources, any data and information obtained should be made accessible to third parties only with the consent of the sensed State, since the sovereign rights of a State encompassed not only its natural resources but also information concerning them. Every State had a legitimate interest in direct access to remote-sensing data and information relating to its own territory, and his delegation did not believe that requiring the prior consent of the sensed State to the dissemination of data and information to third parties would amount to a restrictive approach in the settlement of the problem, since in State practice the dissemination of such data and information was normally governed by bilateral or multilateral treaties. In that connexion, he quoted from article XI of the 1967 Treaty and observed that, in respect of remote sensing, the article meant that every State should be given access to data and information relating to its territory on the basis of agreed conditions. In his view, the United Nations and other international organizations could co-ordinate co-operation between States in that field.

28. His delegation was in favour of formulating draft principles to the effect that a State obtaining remote-sensing data on the natural resources of another State should enter into immediate consultations with the latter with a view to the conclusion of a mutually acceptable agreement. That would ensure that the sensed State was the first to receive the data relating to its territory and, at the same time, would help to avoid misuse of such data to the detriment of the sensed State. The consultations might, in addition, deal with the participation of the sensed State in reading the data, with the determination of fees for their utilization and with their confidential handling.